KENWOOD

Listen to the Future

ADVANCED WIRELESS COMMUNICATIONS

# TK-7150/8150

## VHF/UHF FM Mobile Radios

FleetSync® by KENWOOD

### GENERAL FEATURES

- 50 W (136-174 MHz)
- 45 W (450-500 MHz)
- Conventional & LTR® Zones
- Remote Control Head Option[1]
- 12 Character Alphanumeric Aliases
- Backlit Dot Matrix LCD
- 3-Digit Sub-Display
- Function / Status LCD Icons
- Transmit & Receive LEDS
- Rotary Selector Knob
- Rotary Volume Knob
- 6 PF Keys with Labels
- Emergency / AUX Key
- Enhanced Kenwood Audio
- 3.5 W Front Panel Speaker
- 13 W External Speaker Output
- Companded Audio
- Encryption & ANI Board Control
- Emergency Call Features
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Time Out Timer
- Busy Channel Lockout
- Timed Power Off
- DB-25 Accessory Connector
- 4 Programmable AUX I/Os
- 4 Programmable AUX Outputs
- Ext. Speaker, PA, Ignition Connector[2]
- Ignition Sense[3]
- Public Address/Horn Alert Output[4]
- MIL-Spec / Noise-Cancel Mic Opt.
- MIL-Spec / Noise Cancel DTMF Mic Opt.
- Windows® Programming & Tuning
- Windows® Firmware Uploading
- Front Panel Test / Tune
- Cloning
- MIL-STD-810 C/D/E/F

### CONVENTIONAL ZONES

- 128 Channels / 128 Zones
- QT / DQT
- Two-Tone Decode
- Single / Two-Tone Encode
- Operator Selectable Tone
- Dual Priority Scan
- Single & Multi-Zone Scan
- List Scan

### TRUNKED ZONES

- 250 GID / 32 Zones
- Kenwood LTR® Features

### FleetSync®

- FleetSync® or FleetSync® II
- PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Short & Long Text Messages[5]
- FleetSync® GPS Ready[6]
- Send GPS PF Key[6]
- PC Serial Interface

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## Options

- **KMC-9C** Desktop Microphone
- **KMC-27A** Microphone (noise-canceling)
- **KMC-278** Microphone
- **KMC-28A** Keypad Microphone (noise-canceling)
- **KCT-18** Ignition Sense Cable
- **KCT-22** Remote Control Cable
  - 8 feet
  - 17 feet
  - 25 feet
- **KCT-23** DC Power Cable
  - Medium Power Dash (10 feet)
  - Medium Power Remote (Positive: 2.3 feet, Negative: 3.3 feet)
- **KE5-5** External Speaker
- **KLF-2** Line Filter
- **KPS-10A** Regulated DC Power Supply
- **KPS-1S** DC Switching Power Supply
- **KRK-9** Single Control Head Remote Kit

*All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.*

## Specifications

| Model | TK-7150 | TK-8150 |
|---|---|---|
| **GENERAL** | | |
| Frequency Range | | |
| Type1: | 136~174MHz | 450~500MHz |
| Number of Channels (Zone)* | | |
| Conventional CH: | Max.128 (1 zone x 128ch ~ 128 zones x 1ch) | |
| Trunking ID: | Max. 250/zone (max.32 zones) | |
| Channel Spacing | | |
| Wide: | 25kHz, 30kHz | 25kHz |
| Narrow: | 12.5kHz, 15kHz | 12.5kHz |
| Operating Voltage | 13.6V DC±15% | |
| Current Drain | | |
| Standby: | 0.5A | 0.5A |
| Receive: | 2.3A | 2.3A |
| Transmit: | Less than 12A | Less than 13A |
| Duty Cycle | Transmit: 20% | |
| Operating Temperature Range | -22°F ~ +140°F (-30°C ~ +60°C) | |
| Frequency Stability (-22°F ~ +140°F) | ±0.00025% | |
| Antenna Impedance | 50 Ω | |
| Dimensions (W x H x D) | 7-1/12" x 2" x 7" (180mm x 50mm x 170mm) | |
| Weight (net) | 5.9 lbs (2.7kg) | |
| FCC ID | ALH32273110 | ALH32283110 |
| Band Spread | 38MHz | 50MHz |

** During simultaneous operation of conventional and LTR® modes. Conventional channel/trunking ID can be programmed up to 512.*
*FleetSync® is a trademark of Kenwood Corporation.*
*LTR® is a registered trademark of Transcrypt International.*

| Model | TK-7150 | TK-8150 |
|---|---|---|
| **RECEIVER** (Measurements made per EIA/TIA-603) | | |
| Sensitivity | | |
| 12dB SINAD: | 0.35µV | |
| 20dB Quieting: | 0.45µV | |
| Selectivity | | |
| Wide: | 84dB (±30kHz) | 80dB (±25kHz) |
| Narrow: | 76dB (±15kHz), 76dB (±12.5kHz) | 73dB (±12.5kHz) |
| Intermodulation | | |
| Wide: | 77dB (±30, 60kHz) | 79dB (±25, 50kHz) |
| Narrow: | 75dB (±15, 30kHz) | 73dB (±12.5, 25kHz) |
| Spurious Response | 85dB | |
| Audio Output | | |
| External: | 12W (@ 4 Ω 3% distortion) 13W (@ 4 Ω 5% distortion) | |
| Internal: | 3.2W (@ 16 Ω 3% distortion) 3.5W (@ 16 Ω 5% distortion) | |
| **TRANSMITTER** (Measurements made per EIA/TIA-603) | | |
| RF Output Power | 50 to 15 watts | 45 to 15 watts |
| High: | 50 watts | 45 watts |
| Low: | 15 watts | 15 watts |
| Type of Emission | | |
| Wide: | 16K0F3E, 20K0F1D | |
| Narrow: | 11K0F3E, 11K2F1D | |
| Spurious Response | 75dB | |
| FM Hum & Noise | | |
| Wide: | 48dB | |
| Narrow: | 42dB | |
| Microphone Impedance | 600 Ω | |
| Audio Distortion | Less than 1% at 1000Hz | |

*Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.*

## Applicable MIL-STD & IP

| Standard | MIL 810C Methods/Procedures | MIL 810D Methods/Procedures | MIL 810E Methods/Procedures | MIL 810F Methods/Procedures |
|---|---|---|---|---|
| **Low Pressure** | 500.1/Procedure I | 500.2/Procedure I, II | 500.3/Procedure I, II | 500.4/Procedure I, II |
| **High Temperature** | 501.1/Procedure I, II | 501.2/Procedure I, II Cat. A1 | 501.3/Procedure I, II Cat. A1 | 501.4/Procedure I, II |
| **Low Temperature** | 502.1/Procedure I | 502.2/Procedure I, II Cat. C1 | 502.3/Procedure I, II Cat. C1 | 502.4/Procedure I, II |
| **Temperature Shock** | 503.1/Procedure I | 503.2/Procedure I Cat. A1, C1 | 503.3/Procedure I Cat. A1, C1 | 503.4/Procedure I, II |
| **Solar Radiation** | 505.1/Procedure I | 505.2/Procedure I | 505.3/Procedure I | 505.4/Procedure I |
| **Rain** | 506.1/Procedure II | 506.2/Procedure II | 506.3/Procedure II | 506.4/Procedure III |
| **Humidity** | 507.1/Procedure II | 507.2/Procedure II | 507.3/Procedure II | 507.4 |
| **Salt Fog** | 509.1/Procedure I | 509.2/Procedure I | 509.3/Procedure I | 509.4 |
| **Dust** | 510.1/Procedure I | 510.2/Procedure I | 510.3/Procedure I | 510.4/Procedure I, III |
| **Vibration** | 514.2/Procedure VIII, X | 514.3/Procedure I Cat. 8 | 514.4/Procedure I Cat. 8 | 514.5/Procedure I Cat. 20 |
| **Shock** | 516.2/Procedure I, II, III, V | 516.3/Procedure I, IV, V | 516.4/Procedure I, IV, V | 516.5/Procedure I, IV, V |

*footnotes from Front:*
*[1] KRK-9, KCT-22M/M2/M3, KCT-23M/M3 remote control options required.*
*[2] 6-Pin Accessory Connector for external speaker, PA Output & ignition sense input.*
*[3] KCT-18 ignition sense cable option required; plugs into mobile 6-pin jack ignition sense input.*
*[4] Built-in PA/HA outputs (no option board required); Horn Alert operates for 2-Tone or DTMF selective call decode only.*
*[5] Short Text Messages are radio stored & LCD displayed; Long Text Messages require a KDS-100 and KCT-40.*
*[6] FleetSync® GPS features require an internal GPS board or externally wired GPS receiver with NMEA TTL level serial data output to the internal COM 1 or 2 set to "GPS".*

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